

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

In re Application of
Srinivas Gutta

METHOD AND SYSTEM AND
ARTICLE OF MANUFACTURE
FOR A MULTI-USER PROFILE
GENERATION

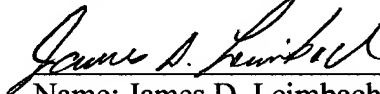
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Examiner: Jamieson W. Fish

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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Serial No. 10/208,684

Real party in interest

The real party of interest is the Assignee who is U. S. Philips Corporation, a corporation existing under the laws of the State of Delaware (hereinafter Appellant).

Related appeals and interferences

There are no related appeals or interferences to the present application that are known to appellants, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of the Claims

Claims 1-26 are drawn to a method and apparatus for an entertainment system, including storage locations for a plurality of user preference data, a user detection system and automatic detection of which users are currently within a predetermined viewing area. A copy of appealed claims 1-26 is contained in Appendix III following this brief.

Status of the Amendments After Final

A response was filed subsequent to the final rejection to overcome the Examiner's rejection of claims 1-26 under the provisions of 35 U.S.C. 102(e) and 103(a). The Examiner in an Advisory Action dated April 4, 2006 indicated that the rejections of claims 1-26 under the provisions of 35 U.S.C. 102(e) and 103(a) stand.

Summary of the Claimed Subject Matter

The appealed claims define subject matter for method and apparatus for an entertainment system, including storage locations for a plurality of user preference data, a user detection system and automatic detection for users are currently within a predetermined viewing area.

Appealed claim 1 defines an apparatus useful with an entertainment system (20) as illustrated in Figure 1, including: a persistent data store (30) having a plurality of storage locations to store a plurality of user preference data for a

corresponding plurality of entertainment system users, wherein individual storage locations are dedicated to store user preference data for an individual system user (40) as described in the originally filed specification beginning on page 4, paragraph 14.

Appealed claim 1 further defines subject matter for a user detection system (22) as described on pages 4-5, paragraph 15 of the specification as originally filed.

Appealed claim 1 further defines subject matter for a profile processor (34), communicatively coupled to the persistent data store (30) and the user detection system (22), the profile processor (34) as described in the specification as originally filed on pages 5-6, paragraph 17. The profile processor (34) is programmed to automatically detect which users (40) of the plurality of entertainment system users (40) are currently within a predetermined viewing area and automatically create a composite user profile, useful for generating a set of recommended entertainment options from a set of available entertainment options, the composite user profile being based on the profiles of each of the plurality of users currently within the predetermined viewing area as described on pages 6-7, paragraphs 19-20 of the specification as originally filed.

Appealed claim 6 defines an entertainment system (20) as illustrated in Figure 1, including: at least one entertainment system component providing programming available to at least one user, the programming being received via at least one input to the entertainment system component; a persistent data store (30) having a plurality of storage locations to store user preference data for a corresponding plurality of entertainment system users (40), wherein at least one unique storage location is dedicated to store the user preference data for a unique corresponding system user as described in the originally filed specification beginning on page 4, paragraph 14.

Appealed claim 6 further defines subject matter for a profile processor (34), operatively in communication with the at least one entertainment system component, the persistent data store (30), and a user detection system (22) as described in the specification as originally filed on pages 5-6, paragraph 17. The profile processor (34) programmed to automatically detect which users of the plurality of entertainment system users (40) are currently within a predefined viewing area as described on pages 6-7, paragraphs 19-20 of the specification as originally filed; wherein the user detection system employs at least one of a computer vision system, a voice recognition system, a

fingerprint recognition system, or a handprint recognition system as described in the originally filed specification on page 5, paragraph 16.

Appealed claim 6 further defines subject matter for a profile processor (34) to automatically create a composite user profile based on a profile for each of the plurality of users (40) currently detected within the predefined viewing area as described on pages 6-7, paragraphs 19-20 of the specification as originally filed.

Appealed claim 6 further defines subject matter for a profile processor (34) to dynamically adjust operating parameters for the entertainment system in response to the composite user profile as described on pages 11-14, paragraphs 34-42 of the specification as originally filed.

Appealed claim 7 defines a method for creating a composite user profile for a plurality of users, the method including: automatically detecting which of a plurality of users (40) are currently within a predetermined viewing area as described on pages 4-5, paragraph 15 of the specification as originally filed; determining an identity for each of the detected plurality of users (40) for each identified user as described on page 6, paragraph 18 of the specification as originally filed; comparing the user's identity against a first predetermined portion of user data stored in a persistent data store is taught in paragraph 32, on page 11 of the specification as originally filed; and retrieving a second predetermined portion of user data from the persistent data store for each user with a user profile stored in the persistent data store is taught in paragraph 33, on page 11 of the specification as originally filed. Appealed claim 7 further defines subject matter for creating a composite user profile from each of the second predetermined portions of user data is taught in paragraph 34, on page 11 of the specification as originally filed.

Appealed claim 24 defines an entertainment system (20) as illustrated in Figure 1, including a program processor operatively connected to a persistent data store (30), a program output device, an audio input device, a user detection device, and a video input device, a method for automatically configuring the entertainment system for a plurality of identified system users, the method comprising: automatically detecting which users (40) from the plurality of identified system users (40) are currently within a predetermined viewing area as described on pages 4-5, paragraph 15 of the specification as originally filed; wherein the automatically detecting employs at least one of a

computer vision system, a voice recognition system, a fingerprint recognition system, or a handprint recognition system as described in the originally filed specification on page 5, paragraph 16.

Appealed claim 24 further defines subject matter for determining which of the detected users have user preference data stored in the persistent data store as described in the originally filed specification on page 8, paragraphs 23-24; retrieving the user preference data corresponding to each of the detected users from the persistent data store for those detected users having profiles in the persistent data store and creating a composite user profile using the retrieved user preference data as described in the originally filed specification on page 9, paragraph 25; scanning programming information for available entertainment options which match the composite user profile within a predetermined range of matching values as described in the originally filed specification on pages 12-13, paragraph 38; and adjusting the entertainment system in accordance with the composite user profile and available entertainment options as described in the originally filed specification on pages 12-13, paragraph 38.

Grounds of Rejection to be Reviewed on Appeal

The Advisory Action dated April 4, 2006 indicated that the rejections to claim 1-26 stand. Claims 1-26 are the appealed claims. Claim 1 is rejected under the provisions of 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,530,083 issued in the name of Liebenow (hereinafter referred to as *Liebenow*). Claims 2, 6-8, 10, and 24-26 are rejected under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of U.S. Patent No. 5,721,583 issued in the name of Harada et al. (hereinafter referred to as *Harada et al.*). Claim 3 is rejected under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Harada et al.* and further in view of U.S. Patent No. 5,164,992 issued in the name of Turk (hereinafter referred to as *Turk*). Claims 4-5, 9, 11-21 and 23 are rejected under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of U.S. Patent No. 6,813,775 issued in the name of Finseth (hereinafter referred to as *Finseth*). Claims 9, 11-21 and 23 under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Harada et al.* and further in view of *Finseth*. Claim 22 under the

provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Finseth* and further in view of U.S. Patent No. 6,614,987 issued in the name of Ismail (hereinafter referred to as *Ismail*).

Argument

I. The rejection of appealed claim 1 under the provisions of 35 U.S.C. 102(e) as being anticipated by *Liebenow* (U.S. Patent No, 6,530,083)

A. The rejection

Appealed claim 1 is rejected under the provisions of 35 U.S.C. 102(e) as being anticipated by *Liebenow* (U.S. Patent No, 6,530,083).

In order to sustain a rejection based on anticipation, the MPEP at §2131 quotes that court in stating that the "identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

B. The reference

Liebenow (U.S. Patent No, 6,530,083) teaches a method and system for adjusting the settings of an information handling system based on the preferences of one or more users (see Abstract). *Liebenow* teaches adjusting the settings of an information handling system based on preferences of one or more users. User identities are saved by *Liebenow* by prompting users, by enumeration, entry via an input device such as a keyboard or remote control unit or by using switches as described on col. 4, line 4-page 5, line 4. It should be noted that the manual entry mechanisms and procedures disclosed by *Liebenow* are not automatic detection of the users.

More specifically, there is no automatic detection of users currently within a predetermined viewing area by *Liebenow*. *Liebenow* clearly teaches that the user may be prompted to provide their identity, select their identity from a displayed list, enter their identity using an input/output device or provide their identity by depressing one of a number of user switches (see col. 4, lines 56-67). The fact that user input is required to

identify the user is again affirmed on col. 6, lines 1-12, col. 7, lines 60-67 and col. 8, line 49-col. 9, line 3. There is no disclosure, or suggestion, within *Liebenow* for automatic detection of which users are currently within a predetermined viewing area.

The appellants further point out that *Liebenow* does not disclose or suggest “a composite user profile” that is useful for generating a set of “entertainment recommended options” wherein the “entertainment recommended options” comprise “genre of entertainment options preferred, e.g. type of music or television type”.

C. The differences between the appealed claims and the reference

Appealed claim 1

The rejection alleges that *Liebenow* anticipates the subject matter defined by appealed claim 1. The appellant, respectfully, point out that the examiner alleges that the manual entry mechanism and procedure disclosed by *Liebenow* in Fig. 1, Fig. 4; Col. 4, lines 4-67; Col. 5, lines 1-47; Col. 7, lines 51-67; and Col. 8, lines 1-29 anticipates the subject matter for automatically detecting users within a predetermined viewing area defined by appealed claim 1. The appellants assert that there is no automatic detection disclosed or suggested by *Liebenow*.

The appellants have the right to be there own lexicographer. The MPEP at §2173.01 states that a fundamental principle contained in 35 U.S.C. 112, second paragraph is that the appellants can act as their own lexicographers. The appellants may define the claims for their invention essentially in whatever terms they choose so long as “any special meaning assigned to a term is clearly set forth in the specification” (MPEP §2173.01).

The MPEP at §2111.01 states that “during examination, the claims must be interpreted as broadly as their terms reasonably allow.” *In re American Academy of Science Tech Center*, 67 F.3d 1359, 1369, 70 USPQ2d 1827, 1834 (Fed. Cir. 2004). The MPEP at §2111.01 further states that “the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification.” *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

The terms that are used within the claims can be interpreted broadly during prosecution but that interpretation must be consistent with the definition of the

term that is supplied within the specification to the present invention. The appellants, respectfully, assert that no reasonable reading of the term “automatically detect” can be read as detection via manual input as the rejection asserts.

Automatically detecting is described in the originally filed specification on page 5, paragraph 16 as “wherein the automatically detecting employs at least one of a computer vision system, a voice recognition system, a fingerprint recognition system, or a handprint recognition system.” The definition of automatically detecting that the rejection employs within *Liebenow* is for the user to be prompted to provide their identity, select their identity from a displayed list, enter their identity using an input/output device or provide their identity by depressing one of a number of user switches (see *Liebenow* col. 4, lines 56-67) is wholly inconsistent with the definition that is supplied by the specification to the present invention.

Furthermore, *Liebenow* is silent towards anything that could reasonably be considered automatic detection of users currently within a predetermined viewing area. *Liebenow* clearly teaches that the user is required to identify the user is again affirmed on col. 6, lines 1-12 and col. 7, lines 60-67. There is no disclosure, or suggestion, within *Liebenow* for automatic detection of which users are currently within a predetermined viewing area. The appellants, respectfully, submit that even a broad reading of the terms recited by the rejected claims does not allow for “automatic” to be viewed as synonymous or equivalent to the manual user input taught by the teachings of *Liebenow*.

The appellants, respectfully, assert that no predetermined viewing area disclosed or suggested by *Liebenow*.

The appellants point out that appealed claim 1 defines subject matter for “a composite user profile” that is useful for generating a set of “entertainment recommended options”. The entertainment options are defined by the specification to the present invention on page 6, in the middle of paragraph 19 “genre of entertainment options preferred, e.g. type of music or television type”. The rejection fails to indicate any composite user profile useful for generating a set of music or television options within *Liebenow*. The appellants, respectfully, assert that no entertainment options are defined by the specification to the present invention on page 6, in the middle of paragraph 19 “genre of entertainment options preferred, e.g. type of music or television type”

disclosed or suggested by *Liebenow*.

II. The rejection of appealed claims 2, 6-8, 10, and 24-26 under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Harada et al.* (U.S. Patent No. 5,721,583).

A. The rejection

Appealed claims 2, 6-8, 10, and 24-26 are rejected under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Harada et al.* (U.S. Patent No. 5,721,583). The examiner's position is that it would have been obvious for a person skilled in the *Warren et al.* disclose every element defined by appealed claims 11-17 and 19.

The MPEP at §2142 states that in order to "establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The MPEP at §2143.01 further states that the "mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." (*In re Mills*, 916 F.2d at 682, 16 USPQ2d at 1432.).

B. The references

Liebenow (U.S. Patent No. 6,530,083) has been discussed extensively under the rejection of appealed claim 1 under the provisions of 35 U.S.C. 102(e) as being

anticipated by *Liebenow*. The Board is respectfully referred to that description of *Liebenow*. Briefly stated, *Liebenow* teaches adjusting the settings of an information handling system based on the preferences of one or more users. The user identities are saved within *Liebenow* by prompting users, by enumeration, entry via an input device such as a keyboard or remote control unit or by using switches as described on col. 4, line 4-page 5, line 4. The manual entry mechanisms and procedures disclosed by *Liebenow* are not automatic detection of the users. There is no automatic detection of users currently within a predetermined viewing area by *Liebenow*. Furthermore, *Liebenow* does not disclose or suggest “a composite user profile” that is useful for generating a set of “entertainment recommended options” wherein the “entertainment recommended options” comprise “genre of entertainment options preferred, e.g. type of music or television.

Harada et al. (U.S. Patent No. 5,721,583) teach an interactive television system, formed of a central computer installation, a plurality of terminal apparatuses each bidirectionally communicating with the central computer installation via a CATV network. Users can request services or participate in polling by a remote control apparatus that is automatically accompanied by identifier information. User recognition can be implemented by fingerprint recognition section, for enabling restriction of each remote control apparatus to use by only a specific registered user, or to enable only a specific registered user to access certain services (see Abstract). It should be noted that there is no disclosure or suggestion within *Harada et al.* for a plurality of users to be identified with the remote control apparatus. Only a specific user can be identified with the remote control.

Harada et al. teach that a fingerprint or voice recognition system can be used to verify a user’s identity (see col. 25, lines 55-67). Note that there is no disclosure or suggestion within *Harada et al.* for the user to be combined or for the any user profile to be generated. *Harada et al.* do not disclose or suggest any for of a profile that could be considered “a composite user profile”. Furthermore, there is no disclosure or suggestion within *Harada et al.* for any generation of entertainment options or genre of entertainment options preferred, e.g. type of music or television. It should further be

noted that there is no disclosure or suggestion within *Harada et al.* for the automatic detection of which users are currently within a predetermined viewing area.

C. The differences between the invention and the reference

Appealed claims 2, 6-8, 10, and 24-26

The rejection asserts that *Harada et al.* teach voice recognition and fingerprint recognition. The rejection attempts to combine the teachings of *Harada et al.* with *Liebenow* to arrive at the claimed subject matter. The appellants, respectfully, point out that *Harada et al.* teach recognition of individual users. There is no disclosure or suggestion within *Harada et al.* for the automatic detection of which users are currently within a predetermined viewing area. There is no disclosure or suggestion within *Harada et al.* for the user to be combined or for the any user profile to be generated. *Harada et al.* do not disclose or suggest any for of a profile that could be considered “a composite user profile”.

Furthermore, there is no disclosure or suggestion within *Harada et al.* for any generation of entertainment options or genre of entertainment options preferred, e.g. type of music or television. It should further be noted that there is no disclosure or suggestion within *Harada et al.* for the automatic detection of which users are currently within a predetermined viewing area.

The appellants, respectfully, point out that there must be some suggestion or motivation to combine the references. The rejection has not supplied any suggestion or motivation within the cited references to combine *Harada et al.* with *Liebenow* to arrive at the claimed subject matter. The rejection uses hindsight recreation to find the elements of appealed claims within various prior art references. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. Therefore, the rejection does not make a prima facie case of obviousness. There is no suggestion within the cited references to combine *Harada et al.* with *Liebenow* to arrive at the claimed subject matter.

III. The rejection of appealed claim 3 under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Harada et al.* and further in view of U.S. Patent No. 5,164,992 issued in the name of Turk (hereinafter referred to as *Turk*).

A. The rejection under 35 U.S.C. S 103(a)

Appealed claim 3 is rejected under the provisions of 35 U.S.C. §103 (a) as being obvious over *Liebenow* in view of *Harada et al.* and further in view of U.S. Patent No. 5,164,992 issued in the name of Turk (hereinafter referred to as *Turk*).

The MPEP at §2142 states that in order to “establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.” *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

B. The references

Liebenow (U.S. Patent No, 6,530,083) has been discussed extensively under the rejection of appealed claim 1 under the provisions of 35 U.S.C. 102(e) as being anticipated by *Liebenow*. The Board is respectfully referred to that description of *Liebenow*. Briefly stated, *Liebenow* teaches adjusting the settings of an information handling system based on the preferences of one or more users. The user identities are saved within *Liebenow* by prompting users, by enumeration, entry via an input device such as a keyboard or remote control unit or by using switches as described on col. 4, line 4-page 5, line 4. The manual entry mechanisms and procedures disclosed by *Liebenow* are not automatic detection of the users. There is no automatic detection of users currently within a predetermined viewing area by *Liebenow*. Furthermore, *Liebenow* does not disclose or suggest “a composite user profile” that is useful for generating a set

of “entertainment recommended options” wherein the “entertainment recommended options” comprise “genre of entertainment options preferred, e.g. type of music or television.

Harada et al. has been described extensively under the rejection of appealed claims 2, 6-8, 10, and 24-26 under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Harada et al.* Briefly stated, *Harada et al.* teach that a fingerprint or voice recognition system can be used to verify a user’s identity (see col. 25, lines 55-67). Note that there is no disclosure or suggestion within *Harada et al.* for the user to be combined or for the any user profile to be generated. *Harada et al.* do not disclose or suggest any for of a profile that could be considered “a composite user profile”. Furthermore, there is no disclosure or suggestion within *Harada et al.* for any generation of entertainment options or genre of entertainment options preferred, e.g. type of music or television. It should further be noted that there is no disclosure or suggestion within *Harada et al.* for the automatic detection of which users are currently within a predetermined viewing area.

Turk (U.S. Patent No. 5,164,992) teaches a recognition system for identifying members of an audience, including a detection means which analyzes the selected image portion to determine whether an image of a person is present; and a recognition module for determining whether a detected image of a person identified by the detection means resembles one of a reference set of images of individuals (see Abstract). *Turk* on col. 1, lines 55-64 again discloses identifying members of an audience including selecting a portion of the generated image; analyzing the selected image portion to determine whether an image of a person is present; and if an image of a person is determined to be present, determining whether the image of a person resembles one of a reference set of images of individuals. It should be pointed out that there is no disclosure or suggestion within *Turk* for a user detection system coupled to a profile processor to automatically detect which users of the plurality of entertainment system users are currently within a predetermined viewing area or automatically create a composite user profile, useful for generating a set of recommended entertainment options from a set of available entertainment options, the composite user profile being based on the profiles of each of the plurality of users currently within the predetermined viewing area.

C. The differences between the invention and the references

Appealed claim 3

Appealed claim 3 defines the apparatus of appealed claim 2 wherein the computer vision system identifies faces in the detected imagery. There is no disclosure or suggestion within *Liebenow*, *Harada et al.* or *Turk*, either alone or in combination the apparatus of appealed claim 2 wherein the computer vision system identifies faces in the detected imagery.

IV. The rejection of appealed claims 4-5, 9, 11-21 and 23 under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of U.S. Patent No. 6,813,775 issued in the name of Finseth et al. (hereinafter referred to as *Finseth et al.*).

A. The rejection

Appealed claims 4-5, 9, 11-21 and 23 are rejected under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Finseth et al.* (U.S. Patent No. 6,813,775).

The MPEP at §2142 states that in order to “establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.” *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

B. The references

Liebenow (U.S. Patent No. 6,530,083) has been discussed extensively under the rejection of appealed claim 1 under the provisions of 35 U.S.C. 102(e) as being anticipated by *Liebenow*. The Board is respectfully referred to that description of *Liebenow*. Briefly stated, *Liebenow* teaches adjusting the settings of an information handling system based on the preferences of one or more users. The user identities are saved within *Liebenow* by prompting users, by enumeration, entry via an input device such as a keyboard or remote control unit or by using switches as described on col. 4, line 4-page 5, line 4. The manual entry mechanisms and procedures disclosed by *Liebenow* are not automatic detection of the users. There is no automatic detection of users currently within a predetermined viewing area by *Liebenow*. Furthermore, *Liebenow* does not disclose or suggest “a composite user profile” that is useful for generating a set of “entertainment recommended options” wherein the “entertainment recommended options” comprise “genre of entertainment options preferred, e.g. type of music or television.

Finseth et al. (U.S. Patent No. 6,813,775) teaches sharing viewer preference information between users by storing first user viewer preference information characterizing media programs selected by the first user in a memory of a first user device, and transmitting at least a portion of the first viewer preference information to a second user for storage in a memory of a second user device (see Abstract).

Finseth et al. teach that each of the plurality of receiver stations maintains viewing preference profiles, which comprise viewing preference information, by tracking the viewing history of each user. Receiver stations communicate with each other and exchange viewing preference information (see col. 2, lines 3-8).

Finseth et al. on col. 10, lines 8-67 teach to maintain user profiles by accepting viewer preference information directly from the user, or by monitoring and storing viewer-selected media programs. Receiver 64 tracks a user's viewing history and stores viewing preference information. For each media program that is chosen by a user, receiver 64 stores information characterizing the media program. When a user selects a television program from program guide 88A, the characterizing information from the associated program guide object is stored in the selection history table in memory 78. The

characterizing information is organized into attributes. Attributes include information such as category descriptors that identify the type and category of television program. Attributes also include indicators that the television program is one of a particular series or that the program is one of a group of associated programs.

C. The differences between the invention and the references

Appealed claim 4

Appealed claim 4 defines the subject matter of appealed claim 1 wherein the profile processor is further programmed to monitor interaction of users with the entertainment system, selectively store a predetermined portion of each interaction in a view history, and selectively retrieve interactions from the view history. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 1 wherein the profile processor is further programmed to monitor interaction of users with the entertainment system, selectively store a predetermined portion of each interaction in a view history, and selectively retrieve interactions from the view history.

Appealed claim 5

Appealed claim 5 defines the subject matter of appealed claim 4 wherein the profile processor is further programmed to: create at least one value relating to the view history of a user within that user's profile; and create a set of recommend viewing choices for the composite user profile based at least in part on each detected user's past viewing history for viewing choices similar to or the same as the viewing choices in those users' past viewing histories. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 4 wherein the profile processor is further programmed to: create at least one value relating to the view history of a user within that user's profile; and create a set of recommend viewing choices for the composite user profile based at least in part on each detected user's past viewing history for viewing choices similar to or the same as the viewing choices in those users' past viewing histories.

Appealed claim 9

Appealed claim 9 defines the subject matter of appealed claim 7 including: accumulating a view history for each detected user, the view history comprising positive entertainment options; creating a composite view history from the accumulated view histories, the composite view history comprising positive entertainment options; adjusting the composite user profile using the positive entertainment options in the composite view history wherein each positive entertainment option in the composite user profile reflects a sum of occurrences of that positive entertainment option in each of the individual user's profiles; generating negative entertainment options for each positive entertainment option in the composite user profile; determining which entertainment options available in a predetermined time frame are positively rated by the composite user profile; and generating a composite score for each positive entertainment option and negative entertainment option in the composite user profile. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 7 including: accumulating a view history for each detected user, the view history comprising positive entertainment options; creating a composite view history from the accumulated view histories, the composite view history comprising positive entertainment options; adjusting the composite user profile using the positive entertainment options in the composite view history wherein each positive entertainment option in the composite user profile reflects a sum of occurrences of that positive entertainment option in each of the individual user's profiles; generating negative entertainment options for each positive entertainment option in the composite user profile; determining which entertainment options available in a predetermined time frame are positively rated by the composite user profile; and generating a composite score for each positive entertainment option and negative entertainment option in the composite user profile.

Appealed claim 10

Appealed claim 10 defines the subject matter of appealed claim 7 wherein a user profile may be generated by an individual who has authority to generate a user profile for users who are present but who have no profile. There is no disclosure or

suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 7 wherein a user profile may be generated by an individual who has authority to generate a user profile for users who are present but who have no profile.

Appealed claim 11

Appealed claim 11 defines the subject matter of appealed claim 7 further including: creating a composite view history to reflect each view history stored in the stored user data for each user identified; generating a set of positive entertainment options from a set of available entertainment options for that available entertainment options that meet or exceed a predetermined threshold value of positive entertainment options in the composite view history; and generating a set of negative entertainment options by sampling the set of available entertainment options that do not meet the predetermined threshold value of positive entertainment options in the composite view history. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 7 further including: creating a composite view history to reflect each view history stored in the stored user data for each user identified; generating a set of positive entertainment options from a set of available entertainment options for that available entertainment options that meet or exceed a predetermined threshold value of positive entertainment options in the composite view history; and generating a set of negative entertainment options by sampling the set of available entertainment options that do not meet the predetermined threshold value of positive entertainment options in the composite view history.

Appealed claim 12

Appealed claim 12 defines the subject matter of appealed claim 11 further comprising using a uniform random distribution to create a set of negative options. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising using a uniform random distribution to create a set of negative options.

Appealed claim 13

Appealed claim 13 defines the subject matter of appealed claim 11 further comprising allowing a user to select an entertainment option from the set of positive entertainment options; and preventing selection of an available entertainment option for entertainment options that are members of the set of negative entertainment options. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising allowing a user to select an entertainment option from the set of positive entertainment options; and preventing selection of an available entertainment option for entertainment options that are members of the set of negative entertainment options.

Appealed claim 14

Appealed claim 14 defines the subject matter of appealed claim 13 further comprising restricting negative entertainment options to those that occur within a predetermined time frame. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 13 further comprising restricting negative entertainment options to those that occur within a predetermined time frame.

Appealed claim 15

Appealed claim 15 defines the subject matter of appealed claim 11 further comprising using an adaptive sampling technique to select entertainment options from all available entertainment options such that the selected entertainment options match preferences in the composite user profile within a predetermined range. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising using an adaptive sampling technique to select entertainment options from all available entertainment options such that the selected entertainment options match preferences in the composite user profile within a predetermined range.

Appealed claim 16

Appealed claim 16 defines the subject matter of appealed claim 11 further comprising generating entertainment option recommendations based on available entertainment options and the set of positive entertainment options using implicit selection techniques, explicit selection techniques, feedback selection techniques, or a combination thereof. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising generating entertainment option recommendations based on available entertainment options and the set of positive entertainment options using implicit selection techniques, explicit selection techniques, feedback selection techniques, or a combination thereof.

Appealed claim 17

Appealed claim 17 defines the subject matter of appealed claim 16 wherein the implicit selection techniques comprise capturing users' entertainment option selection patterns and generating entertainment option recommendations based on a composite of the users' entertainment option selection patterns. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 16 wherein the implicit selection techniques comprise capturing users' entertainment option selection patterns and generating entertainment option recommendations based on a composite of the users' entertainment option selection patterns.

Appealed claim 18

Appealed claim 18 defines the subject matter of appealed claim 16 wherein the explicit selection techniques comprise having the users explicitly input each of the user's entertainment option preferences and generating entertainment option recommendations based on a composite of the users' explicit entertainment option preferences. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 16 wherein the explicit selection techniques comprise having the users explicitly input each of the user's

entertainment option preferences and generating entertainment option recommendations based on a composite of the users' explicit entertainment option preferences.

Appealed claim 19

Appealed claim 19 defines the subject matter of appealed claim 11 further comprising: capturing users' entertainment option selection patterns; accepting at least one of the users' explicit input of the user's entertainment option preferences; and generating entertainment option recommendations based on a composite of the users' entertainment option selection patterns and on a composite of the users' explicit entertainment option preferences. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising: capturing users' entertainment option selection patterns; accepting at least one of the users' explicit input of the user's entertainment option preferences; and generating entertainment option recommendations based on a composite of the users' entertainment option selection patterns and on a composite of the users' explicit entertainment option preferences.

Appealed claim 20

Appealed claim 20 defines the subject matter of appealed claim 11 further comprising: generating scores for each of the detected users from each of the detected users' profile data; and combining the detected users' profiles using the generated scores. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising: generating scores for each of the detected users from each of the detected users' profile data; and combining the detected users' profiles using the generated scores.

Appealed claim 21

Appealed claim 21 defines the subject matter of appealed claim 20 wherein each user's individual user profile may further comprise a weighting factor such that each detected user's preferences are weighted independently from other users detected in the viewing area when generating scores for the detected users from each of

the detected users' profile data. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 20 wherein each user's individual user profile may further comprise a weighting factor such that each detected user's preferences are weighted independently from other users detected in the viewing area when generating scores for the detected users from each of the detected users' profile data.

Appealed claim 23

Appealed claim 23 defines the subject matter of appealed claim 11 further comprising: rating available entertainment options for a predetermined time frame against each of the previously created individual profiles of each user detected in the viewing area; and presenting only entertainment options that meet or exceed a predetermined rating threshold in each of the previously created individual profiles of each user present in the viewing area. There is no disclosure or suggestion within *Liebenow* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising: rating available entertainment options for a predetermined time frame against each of the previously created individual profiles of each user detected in the viewing area; and presenting only entertainment options that meet or exceed a predetermined rating threshold in each of the previously created individual profiles of each user present in the viewing area.

V. The rejection of appealed claims 9, 11-21 and 23 under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Harada et al.* and further in view of *Finseth*.

A. The rejection

Appealed claims 9, 11-21 and 23 are rejected under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Harada et al.* and further in view of *Finseth*.

The MPEP at §2142 states that in order to “establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or

motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.” *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

B. The references

Liebenow (U.S. Patent No. 6,530,083) has been discussed extensively under the rejection of appealed claim 1 under the provisions of 35 U.S.C. 102(e) as being anticipated by *Liebenow*. The Board is respectfully referred to that description of *Liebenow*. Briefly stated, *Liebenow* teaches adjusting the settings of an information handling system based on the preferences of one or more users. The user identities are saved within *Liebenow* by prompting users, by enumeration, entry via an input device such as a keyboard or remote control unit or by using switches as described on col. 4, line 4-page 5, line 4. The manual entry mechanisms and procedures disclosed by *Liebenow* are not automatic detection of the users. There is no automatic detection of users currently within a predetermined viewing area by *Liebenow*. Furthermore, *Liebenow* does not disclose or suggest “a composite user profile” that is useful for generating a set of “entertainment recommended options” wherein the “entertainment recommended options” comprise “genre of entertainment options preferred, e.g. type of music or television.

Harada et al. has been described extensively under the rejection of appealed claims 2, 6-8, 10, and 24-26 under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Harada et al.* Briefly stated, *Harada et al.* teach that a fingerprint or voice recognition system can be used to verify a user's identity (see col. 25, lines 55-67). Note that there is no disclosure or suggestion within *Harada et al.* for the user to be combined or for the any user profile to be generated. *Harada et al.* do not disclose or suggest any for of a profile that could be considered “a composite user

profile”. Furthermore, there is no disclosure or suggestion within *Harada et al.* for any generation of entertainment options or genre of entertainment options preferred, e.g. type of music or television. It should further be noted that there is no disclosure or suggestion within *Harada et al.* for the automatic detection of which users are currently within a predetermined viewing area.

Finseth et al. (U.S. Patent No. 6,813,775) teaches sharing viewer preference information between users by storing first user viewer preference information characterizing media programs selected by the first user in a memory of a first user device, and transmitting at least a portion of the first viewer preference information to a second user for storage in a memory of a second user device (see Abstract).

Finseth et al. teach that each of the plurality of receiver stations maintains viewing preference profiles, which comprise viewing preference information, by tracking the viewing history of each user. Receiver stations communicate with each other and exchange viewing preference information (see col. 2, lines 3-8). *Finseth et al.* on col. 10, lines 8-67 teach to maintain user profiles by accepting viewer preference information directly from the user, or by monitoring and storing viewer-selected media programs. Receiver 64 tracks a user's viewing history and stores viewing preference information. For each media program that is chosen by a user, receiver 64 stores information characterizing the media program. When a user selects a television program from program guide 88A, the characterizing information from the associated program guide object is stored in the selection history table in memory 78. The characterizing information is organized into attributes. Attributes include information such as category descriptors that identify the type and category of television program. Attributes also include indicators that the television program is one of a particular series or that the program is one of a group of associated programs.

C. The differences between the invention and the references

Appealed claim 9

Appealed claim 9 defines the subject matter of appealed claim 7 including:

accumulating a view history for each detected user, the view history comprising positive entertainment options; creating a composite view history from the accumulated view histories, the composite view history comprising positive entertainment options; adjusting the composite user profile using the positive entertainment options in the composite view history wherein each positive entertainment option in the composite user profile reflects a sum of occurrences of that positive entertainment option in each of the individual user's profiles; generating negative entertainment options for each positive entertainment option in the composite user profile; determining which entertainment options available in a predetermined time frame are positively rated by the composite user profile; and generating a composite score for each positive entertainment option and negative entertainment option in the composite user profile. There is no disclosure or suggestion within *Liebenow*, *Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 7 including: accumulating a view history for each detected user, the view history comprising positive entertainment options; creating a composite view history from the accumulated view histories, the composite view history comprising positive entertainment options; adjusting the composite user profile using the positive entertainment options in the composite view history wherein each positive entertainment option in the composite user profile reflects a sum of occurrences of that positive entertainment option in each of the individual user's profiles; generating negative entertainment options for each positive entertainment option in the composite user profile; determining which entertainment options available in a predetermined time frame are positively rated by the composite user profile; and generating a composite score for each positive entertainment option and negative entertainment option in the composite user profile.

Appealed claim 11

Appealed claim 11 defines the subject matter of appealed claim 7 further including: creating a composite view history to reflect each view history stored in the stored user data for each user identified; generating a set of positive entertainment options from a set of available entertainment options for that available entertainment options that meet or exceed a predetermined threshold value of positive entertainment

options in the composite view history; and generating a set of negative entertainment options by sampling the set of available entertainment options that do not meet the predetermined threshold value of positive entertainment options in the composite view history. There is no disclosure or suggestion within *Liebenow, Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 7 further including: creating a composite view history to reflect each view history stored in the stored user data for each user identified; generating a set of positive entertainment options from a set of available entertainment options for that available entertainment options that meet or exceed a predetermined threshold value of positive entertainment options in the composite view history; and generating a set of negative entertainment options by sampling the set of available entertainment options that do not meet the predetermined threshold value of positive entertainment options in the composite view history.

Appealed claim 12

Appealed claim 12 defines the subject matter of appealed claim 11 further comprising using a uniform random distribution to create a set of negative options. There is no disclosure or suggestion within *Liebenow, Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising using a uniform random distribution to create a set of negative options.

Appealed claim 13

Appealed claim 13 defines the subject matter of appealed claim 11 further comprising allowing a user to select an entertainment option from the set of positive entertainment options; and preventing selection of an available entertainment option for entertainment options that are members of the set of negative entertainment options. There is no disclosure or suggestion within *Liebenow, Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising allowing a user to select an entertainment option from the set of positive entertainment options; and preventing selection of an available entertainment option for entertainment options that are members of the set of negative entertainment options.

Appealed claim 14

Appealed claim 14 defines the subject matter of appealed claim 13 further comprising restricting negative entertainment options to those that occur within a predetermined time frame. There is no disclosure or suggestion within *Liebenow*, *Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 13 further comprising restricting negative entertainment options to those that occur within a predetermined time frame.

Appealed claim 15

Appealed claim 15 defines the subject matter of appealed claim 11 further comprising using an adaptive sampling technique to select entertainment options from all available entertainment options such that the selected entertainment options match preferences in the composite user profile within a predetermined range. There is no disclosure or suggestion within *Liebenow*, *Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising using an adaptive sampling technique to select entertainment options from all available entertainment options such that the selected entertainment options match preferences in the composite user profile within a predetermined range.

Appealed claim 16

Appealed claim 16 defines the subject matter of appealed claim 11 further comprising generating entertainment option recommendations based on available entertainment options and the set of positive entertainment options using implicit selection techniques, explicit selection techniques, feedback selection techniques, or a combination thereof. There is no disclosure or suggestion within *Liebenow*, *Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising generating entertainment option recommendations based on available entertainment options and the set of positive entertainment options using implicit selection techniques, explicit selection techniques, feedback selection techniques, or a combination thereof.

Appealed claim 17

Appealed claim 17 defines the subject matter of appealed claim 16 wherein the implicit selection techniques comprise capturing users' entertainment option selection patterns and generating entertainment option recommendations based on a composite of the users' entertainment option selection patterns. There is no disclosure or suggestion within *Liebenow*, *Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 16 wherein the implicit selection techniques comprise capturing users' entertainment option selection patterns and generating entertainment option recommendations based on a composite of the users' entertainment option selection patterns.

Appealed claim 18

Appealed claim 18 defines the subject matter of appealed claim 16 wherein the explicit selection techniques comprise having the users explicitly input each of the user's entertainment option preferences and generating entertainment option recommendations based on a composite of the users' explicit entertainment option preferences. There is no disclosure or suggestion within *Liebenow*, *Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 16 wherein the explicit selection techniques comprise having the users explicitly input each of the user's entertainment option preferences and generating entertainment option recommendations based on a composite of the users' explicit entertainment option preferences.

Appealed claim 19

Appealed claim 19 defines the subject matter of appealed claim 11 further comprising: capturing users' entertainment option selection patterns; accepting at least one of the users' explicit input of the user's entertainment option preferences; and generating entertainment option recommendations based on a composite of the users' entertainment option selection patterns and on a composite of the users' explicit entertainment option preferences. There is no disclosure or suggestion within *Liebenow*,

Harada et al. or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising: capturing users' entertainment option selection patterns; accepting at least one of the users' explicit input of the user's entertainment option preferences; and generating entertainment option recommendations based on a composite of the users' entertainment option selection patterns and on a composite of the users' explicit entertainment option preferences.

Appealed claim 20

Appealed claim 20 defines the subject matter of appealed claim 11 further comprising: generating scores for each of the detected users from each of the detected users' profile data; and combining the detected users' profiles using the generated scores. There is no disclosure or suggestion within *Liebenow*, *Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising: generating scores for each of the detected users from each of the detected users' profile data; and combining the detected users' profiles using the generated scores.

Appealed claim 21

Appealed claim 21 defines the subject matter of appealed claim 20 wherein each user's individual user profile may further comprise a weighting factor such that each detected user's preferences are weighted independently from other users detected in the viewing area when generating scores for the detected users from each of the detected users' profile data. There is no disclosure or suggestion within *Liebenow*, *Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 20 wherein each user's individual user profile may further comprise a weighting factor such that each detected user's preferences are weighted independently from other users detected in the viewing area when generating scores for the detected users from each of the detected users' profile data.

Appealed claim 23

Appealed claim 23 defines the subject matter of appealed claim 11 further comprising: rating available entertainment options for a predetermined time frame against

each of the previously created individual profiles of each user detected in the viewing area; and presenting only entertainment options that meet or exceed a predetermined rating threshold in each of the previously created individual profiles of each user present in the viewing area. There is no disclosure or suggestion within *Liebenow*, *Harada et al.* or *Finseth et al.*, taken alone or in combination for the subject matter of appealed claim 11 further comprising: rating available entertainment options for a predetermined time frame against each of the previously created individual profiles of each user detected in the viewing area; and presenting only entertainment options that meet or exceed a predetermined rating threshold in each of the previously created individual profiles of each user present in the viewing area.

VI. The rejection of appealed claim 22 under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Finseth*, in view of *Harada et al.* and further in view of U.S. Patent No. 6,614,987 issued in the name of Ismail (hereinafter referred to as *Ismail*)

A. The rejection under 35 U.S.C. S 103(a)

Appealed claim 22 is rejected under the provisions of 35 U.S.C. §103 (a) as being obvious over *Liebenow*, in view of *Finseth*, in view of *Harada et al.* and further in view of U.S. Patent No. 6,614,987 issued in the name of Ismail (hereinafter referred to as *Ismail*).

The MPEP at §2142 states that in order to “establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.” *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

B. The references

Liebenow (U.S. Patent No, 6,530,083) has been discussed extensively under the rejection of appealed claim 1 under the provisions of 35 U.S.C. 102(e) as being anticipated by *Liebenow*. The Board is respectfully referred to that description of *Liebenow*. Briefly stated, *Liebenow* teaches adjusting the settings of an information handling system based on the preferences of one or more users. The user identities are saved within *Liebenow* by prompting users, by enumeration, entry via an input device such as a keyboard or remote control unit or by using switches as described on col. 4, line 4-page 5, line 4. The manual entry mechanisms and procedures disclosed by *Liebenow* are not automatic detection of the users. There is no automatic detection of users currently within a predetermined viewing area by *Liebenow*. Furthermore, *Liebenow* does not disclose or suggest “a composite user profile” that is useful for generating a set of “entertainment recommended options” wherein the “entertainment recommended options” comprise “genre of entertainment options preferred, e.g. type of music or television.

Harada et al. has been described extensively under the rejection of appealed claims 2, 6-8, 10, and 24-26 under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Harada et al.* Briefly stated, *Harada et al.* teach that a fingerprint or voice recognition system can be used to verify a user’s identity (see col. 25, lines 55-67). Note that there is no disclosure or suggestion within *Harada et al.* for the user to be combined or for the any user profile to be generated. *Harada et al.* do not disclose or suggest any for of a profile that could be considered “a composite user profile”. Furthermore, there is no disclosure or suggestion within *Harada et al.* for any generation of entertainment options or genre of entertainment options preferred, e.g. type of music or television. It should further be noted that there is no disclosure or suggestion within *Harada et al.* for the automatic detection of which users are currently within a predetermined viewing area.

Finseth et al. has been discussed in detail in the appeal to the rejection of claims 4-5, 9, 11-21 and 23 under the provisions of 35 U.S.C. 103(a) as being obvious over *Liebenow* in view of *Finseth et al.* Briefly stated, *Finseth et al.* teach sharing viewer preference information between users by storing first user viewer preference information

characterizing media programs selected by the first user in a memory of a first user device, and transmitting at least a portion of the first viewer preference information to a second user for storage in a memory of a second user device (see Abstract). *Finseth et al.* teach that each of the plurality of receiver stations maintains viewing preference profiles, which comprise viewing preference information, by tracking the viewing history of each user. Receiver stations communicate with each other and exchange viewing preference information (see col. 2, lines 3-8). *Finseth et al.* on col. 10, lines 8-67 teach to maintain user profiles by accepting viewer preference information directly from the user, or by monitoring and storing viewer-selected media programs.

Ismail et al. teach a system for recording television programs for subsequent viewing by a preference determination module responsive to attribute information associated with television programs viewed by the user. The preference determination module categorizes the attribute information in accordance with categorization parameters to generate recordation preference information, indicative of television program viewing preferences of the user (see Abstract). Col. 6, lines 35-51 *Ismail et al.* teach a preference database is generated by downloading category-value pairs from a third-party source. Such sources may provide information customized for particular geographical areas and dates. The database may contain data that gives sporting events involving local teams higher ratings than other sporting events. The preference database is modified in accordance with the user's viewing habits. In addition, the preference database can be periodically updated from third-party sources to reflect the aforementioned seasonal or holiday updates

C. The difference between the invention and the references

Appealed claim 22

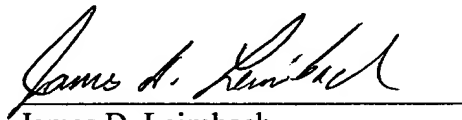
Appealed claim 22 defines the subject matter of appealed claim 21 wherein the weighting factor can vary as a function of time of day or calendar time. There is no disclosure or suggestion within *Liebenow*, *Harada et al.*, *Finseth et al.* or *Ismail et al.*, taken alone or in combination for the subject matter of appealed claim 21 wherein the weighting factor can vary as a function of time of day or calendar time.

Conclusion

In summary, the examiner's rejections of the claims are believed to be in error for the reasons explained above. The rejections of each of claims 1-26 should be reversed.

The Commissioner is authorized to charge fees associated with the filing of this brief to Account No. 50-3745 including any underpayments, excluding the payment of any issue fees, and to credit any overpayments to the same account.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "James D. Leimbach", is written over a horizontal line.

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APPENDIX I. Evidence on Appeal

“None”

APPENDIX II. Related Proceedings

“None”

APPENDIX III. Claims on Appeal

1. An apparatus useful with an entertainment system, the apparatus comprising:
 - a. a persistent data store having a plurality of storage locations to store a plurality of user preference data for a corresponding plurality of entertainment system users, wherein individual storage locations are dedicated to store user preference data for an individual system user;
 - b. a user detection system; and
 - c. a profile processor, communicatively coupled to the persistent data store and the user detection system, the profile processor programmed to:
 - i. automatically detect which users of the plurality of entertainment system users are currently within a predetermined viewing area; and
 - ii. automatically create a composite user profile, useful for generating a set of recommended entertainment options from a set of available entertainment options, the composite user profile being based on the profiles of each of the plurality of users currently within the predetermined viewing area.
2. The apparatus of claim 1 wherein the user detection system comprises at least one of a computer vision system, a voice recognition system, a fingerprint recognition system, or a handprint recognition system.
3. The apparatus of claim 2 wherein the computer vision system identifies faces in the detected imagery.
4. The apparatus of claim 1 wherein the profile processor is further programmed to monitor interaction of users with the entertainment system, selectively store a predetermined portion of each interaction in a view history, and selectively retrieve interactions from the view history.

5. The apparatus of claim 4 wherein the profile processor is further programmed to:

- a. create at least one value relating to the view history of a user within that user's profile; and
- b. create a set of recommend viewing choices for the composite user profile based at least in part on each detected user's past viewing history for viewing choices similar to or the same as the viewing choices in those users' past viewing histories.

6. An entertainment system, comprising:

- a. at least one entertainment system component providing programming available to at least one user, the programming being received via at least one input to the entertainment system component;
- b. a persistent data store having a plurality of storage locations to store user preference data for a corresponding plurality of entertainment system users, wherein at least one unique storage location is dedicated to store the user preference data for a unique corresponding system user; and
- c. a profile processor, operatively in communication with the at least one entertainment system component, the persistent data store, and a user detection system, the profile processor programmed to:
 - i. automatically detect which users of the plurality of entertainment system users are currently within a predefined viewing area, wherein the user detection system employs at least one of a computer vision system, a voice recognition system, a fingerprint recognition system, or a handprint recognition system;
 - ii. automatically create a composite user profile based on a profile for each of the plurality of users currently detected within the predefined viewing area; and
 - iii. dynamically adjust operating parameters for the entertainment system in response to the composite user profile.

7. A method for creating a composite user profile for a plurality of users, the method comprising:

- a. automatically detecting which of a plurality of users are currently within a predetermined viewing area;
- b. determining an identity for each of the detected plurality of users;
- c. for each identified user,
 - i. comparing the user's identity against a first predetermined portion of user data stored in a persistent data store; and
 - ii. retrieving a second predetermined portion of user data from the persistent data store for each user with a user profile stored in the persistent data store; and
- d. creating a composite user profile from each of the second predetermined portions of user data.

8. The method of claim 7 further comprising creating a set of recommended entertainment options based on the composite user profile from a set of available entertainment options.

9. The method of claim 7 further comprising:

- e. accumulating a view history for each detected user, the view history comprising positive entertainment options;
- f. creating a composite view history from the accumulated view histories, the composite view history comprising positive entertainment options;
- g. adjusting the composite user profile using the positive entertainment options in the composite view history wherein each positive entertainment option in the composite user profile reflects a sum of occurrences of that positive entertainment option in each of the individual user's profiles;
- h. generating negative entertainment options for each positive entertainment option in the composite user profile;
- i. determining which entertainment options available in a predetermined time frame are positively rated by the composite user profile; and

- j. generating a composite score for each positive entertainment option and negative entertainment option in the composite user profile.

10. The method of claim 7 wherein a user profile may be generated by an individual who has authority to generate a user profile for users who are present but who have no profile.

11. The method of claim 7 further comprising:

- e. creating a composite view history to reflect each view history stored in the stored user data for each user identified;
- f. generating a set of positive entertainment options from a set of available entertainment options for that available entertainment options that meet or exceed a predetermined threshold value of positive entertainment options in the composite view history; and
- g. generating a set of negative entertainment options by sampling the set of available entertainment options that do not meet the predetermined threshold value of positive entertainment options in the composite view history.

12. The method of claim 11 wherein step (g) further comprises using a uniform random distribution to create a set of negative options.

13. The method of claim 11 further comprising:

- h. allowing a user to select an entertainment option from the set of positive entertainment options; and
- i. preventing selection of an available entertainment option for entertainment options that are members of the set of negative entertainment options.

14. The method of claim 13 wherein step (i) further comprises restricting negative entertainment options to those that occur within a predetermined time frame.

15. The method of claim 11 wherein step (f) further comprises using an adaptive sampling technique to select entertainment options from all available entertainment options such

that the selected entertainment options match preferences in the composite user profile within a predetermined range.

16. The method of claim 11 further comprising:

- h. generating entertainment option recommendations based on available entertainment options and the set of positive entertainment options using implicit selection techniques, explicit selection techniques, feedback selection techniques, or a combination thereof.

17. The method of claim 16 wherein the implicit selection techniques comprise capturing users' entertainment option selection patterns and generating entertainment option recommendations based on a composite of the users' entertainment option selection patterns.

18. The method of claim 16 wherein the explicit selection techniques comprise having the users explicitly input each of the user's entertainment option preferences and generating entertainment option recommendations based on a composite of the users' explicit entertainment option preferences.

19. The method of claim 11 further comprising:

- h. capturing users' entertainment option selection patterns;
- i. accepting at least one of the users' explicit input of the user's entertainment option preferences; and
- j. generating entertainment option recommendations based on a composite of the users' entertainment option selection patterns and on a composite of the users' explicit entertainment option preferences.

20. The method of claim 11 wherein step (e) further comprises:

- i. generating scores for each of the detected users from each of the detected users' profile data; and
- ii. combining the detected users' profiles using the generated scores.

21. The method of claim 20 wherein each user's individual user profile may further comprise a weighting factor such that each detected user's preferences are weighted independently from other users detected in the viewing area when generating scores for the detected users from each of the detected users' profile data.

22. The method of claim 21 wherein the weighting factor can vary as a function of time of day or calendar time.

23. The method of claim 11, further comprising:

- h. rating available entertainment options for a predetermined time frame against each of the previously created individual profiles of each user detected in the viewing area; and
- i. presenting only entertainment options that meet or exceed a predetermined rating threshold in each of the previously created individual profiles of each user present in the viewing area.

24. In an entertainment system including a program processor operatively connected to a persistent data store, a program output device, an audio input device, a user detection device, and a video input device, a method for automatically configuring the entertainment system for an plurality of identified system users, the method comprising:

- j. automatically detecting which users from the plurality of identified system users are currently within a predetermined viewing area, wherein the automatically detecting employs at least one of a computer vision system, a voice recognition system, a fingerprint recognition system, or a handprint recognition system;
- k. determining which of the detected users have user preference data stored in the persistent data store;
- l. retrieving the user preference data corresponding to each of the detected users from the persistent data store for those detected users having profiles in the persistent data store;
- m. creating a composite user profile using the retrieved user preference data;

- n. scanning programming information for available entertainment options which match the composite user profile within a predetermined range of matching values; and
- o. adjusting the entertainment system in accordance with the composite user profile and available entertainment options.

25. A computer program embodied within a computer-readable medium created using the method of claim 7.

26. A computer program embodied within a computer-readable medium created using the method of claim 24.